

### **Listing of Claims:**

1. - 6. (Canceled)

7. (Currently Amended) A method for monitoring a vibration gyro which represents a resonator and is part of at least one control loop, the vibration gyro being excited by an excitation signal generated by the at least one control loop at a natural frequency of the vibration gyro, said method comprising the steps of:

tapping an output signal from which the excitation signal is derived by filtering and amplification;

inserting an additional phase shift of the excitation signal into the at least one control loop;

evaluating a Q-factor of the output signal caused by the additional phase shift; ~~and~~

determining ~~that~~ whether the Q-factor of the vibration gyro is sufficiently high by determining whether ~~if~~ the Q-factor is above a threshold value; and

triggering a fault signal if the Q-factor of the vibration gyro is determined to be below the threshold value, thereby indicating that said Q-factor is insufficiently high.

8. (Previously Presented) The method of claim 7, further comprising the steps of:

demodulating the output signal to an in-phase component and a quadrature component, after amplification and analog/digital conversion of the output signal;

modulating, by the quadrature component, a carrier after filtering of the quadrature component;

supplying the modulated carrier as the excitation signal to the vibration gyro;

supplying, after filtering, the in-phase component to a PLL circuit that controls the frequency and phase of the carrier; and

supplying a signal corresponding to the frequency change to the PLL circuit to shift the phase of the excitation signal and cause a phase change in the carrier.

9. (Previously Presented) The method of claim 8, wherein the phase shift with respect to the carrier is approximately  $10^\circ$ .

10. (Previously Presented) The method of claim 7, wherein said step of evaluating a Q-factor comprises evaluating a frequency change of the output signal caused by the additional phase shift.